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What are the most important environmental problems according to the second grade primary school students?

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Abstract

When the fact that the environmental education in primary school should be compulsory is considered, this study aims to determine the obtained information sources about environmental problems of the eighth grade primary school students and their perceptions of the most important environmental problems in city where they live, in Turkey and in the world. In order to perform this purpose, interview form which consists of the multiple choice and the closed-ended questions was prepared by researchers and administered to the eighth grades. These results will be interpreted and recommendations for environmental education will be presented.

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Keywords: Environmental awareness; environmental education; environmental problems; sustainable development; the eight grades at primary school.

1. Introduction

In recent years, people have removed from the principle of “hand in hand with nature” and have unconsciously used the sources found in nature by damaging nature. This situation has led to the emergence of a series environmental problems such as unplanned urbanization, global warming, decaying the natural life, ozone layer depletion, greenhouse, increasing solid wastes, nuclear pollution, decreasing green areas, destruction of plant and animal species (Mert, 2006).

It is also important to protect civic environment and avoid behaviors which disrupt the natural balance up to benefit from the environment (Brisk, 2000). This situation occurs with environmental education which is consistently learning process which provides individuals’ environmental awareness, gains information, ability, values and experience towards solving environmental problems for next generation (Vaughan, Gack, Solorazano & Ray, 2003).

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1.1. The Purpose of The Study

Within the framework of sustainable development, technology or law is not sufficient in the solution of the environmental problems by itself, behavior change of the people is also important. This situation depends on the attitudes and the values which are created to the environment.

Positive attitudes and values towards the environment are occurred with a good education (Kahyaoglu, 2009). However, people are not sufficient about awareness of environmental problems as individuals on the social level. This is an important problem about coping with environmental issues for both our country and the other countries (Özdemir, Yıldız, Ocaktan & Sarışen, 2004).

When the fact that starting studies towards environment in the childhood years is very important (Cordes & Miller, 2000) is considered, the elementary students are ensured awareness towards the environmental problems. This study aims to determine the obtained information sources about environmental problems of the eighth grade primary school students and their perceptions of the most important environmental problems in city where they live, in Turkey and in the world.

1.2. The Significance of The Study

In recent years, some research results show that the environmental education in primary school should be compulsory (Ek, Kılıç, Öğdüm, Düzgün & Şeker, 2009; Özmen, Çakmakçı-Çetinkaya & Nehir, 2005; Özdemir et al., 2004) and starting studies towards environmental education in the childhood years is important (Cordes & Miller, 2000). When these results are taken into consideration, determining the students' awareness of the environmental problems may provide important benefits about determining importance of the themes that can be emphasized to educate environmentally conscious people.

2. Method

Interview form which consists of the multiple choice and the closed-ended questions was prepared by researchers in this study. The *universe* of the study consists of the students who educate level of second grade primary school students in Muğla in 2009-2010 school year, the *sampling* of the study consists of the primary 8th graders who are awareness the all gains about environmental problems. SPSS 16 statistical program package was used in the analysis of quantitative data obtained.

3. Results (Findings)

This section consists of the obtained data, their analysis and their interpretations. There are 58 primary 8th graders in this study.

Table-3.1. The Obtained Information Sources About Environmental Problems of The Primary 8th Graders

The Obtained Information Sources	The Primary 8 th Graders	
	f	%
Radio-Television	37	25
Internet	35	23.6
Newspapers-magazines	31	21
Textbooks	23	15.5
Conferences	4	2.7
People in the close circle	16	10.8
The others	2	1.4

The sources where the primary school students obtain information about environmental problems are as follows: 25% of them from radio and television, 23.6% from the internet, 21% from newspapers and magazines, 15.5% from textbooks, 2.7% from conferences, 10.8% from the people in the close circle. 1.4% of them marked *the others* option.

Table-3.2. The Primary 8th Graders' Views of Levels of Information About Environmental Problems

Levels of Information About Environmental Problems	A lot of information	A little information	Moderate information	Very little information
f	11	10	33	4
%	19	17.2	56.9	6.9

When we look at the information level of the students about the environmental problems, we see that 19% of them have a lot of information, 17.2% have a little information, 56.9% have moderate information, and 6.9% have very little information.

Table-3.3. The Primary 8th Graders' Perceptions of The Most Important Environmental Problems in Their City, in Turkey And in The World

The First Important Environmental Problems	in Their City		in Turkey		in The World	
	Air Pollution		Global Warming		Global Warming	
	f	%	f	%	f	%
	21	13	13	22.4	27	46.6
The Second Important Environmental Problems	Water Pollution		Unplanned Urbanization		Thinning of Ozone Layer	
	f	%	f	%	f	%
	14	24.1	9	15.5	11	19
The Third Important Environmental Problems	Noise Pollution		Wastes		Acid Rain	
	f	%	f	%	f	%
	16	27.6	16	27.6	9	15.5

The participants stated that the most important environmental problem in their city is air pollution, and this is followed by water pollution and noise pollution. They viewed global warming, unplanned urbanization and wastes as the most important environmental problems in Turkey; and in the world, global warming, thinning of ozone layer and acid rain are considered to be the most important environmental problems.

4. Discussion

We obtained some findings from the present study investigating the information sources of the students, their information level, their opinions about the environmental problems and their perceptions of the first three most important problems in their city, Turkey and in the world.

The study revealed that the primary school students mostly acquire information about environmental problems from radio and television, internet, newspapers and magazines. As television and internet play an important role in the daily lives of the children (Katona, Kárász, Leskó, Kosáros & Lakatos, 2008) and adults, if more importance is attached to environmental problems and more information is given about these problems through these media of communication (Yücel, Altunkasa, Güçray, Uslu & Peker-Say, 2006), this will make great contributions to raising awareness of and sensitivity to environmental problems.

Majority of the students were found to have moderate level of information about the environmental problems and there is no student stating that he/she does not have any information. When the fact that there is a positive correlation between the environmental knowledge and environmental attitudes (Campel, Waliczek & Zajicek, 1999), is considered, it seems to be clear that increasing knowledge base will help improve the environmental attitudes.

The environmental problems in the city where the student live are put into order of precedence as follows: number one is air pollution, number two is water pollution and number three is noise pollution. This result reveals that the students are not indifferent to the factors affecting their close environment because the students live close to a fossil fuel plant and they think this plant pollutes the air and water. But acid rain is the most important environmental problem and the pre-service teachers didn't specify acid rain within air pollution. The inclusion of noise pollution can be because the school of the students participating in the study is close the main road. The findings of the present study concurs with those of Yılmaz & Sezen-Öz (2004) in Erzurum, and Yılmaz (2009) in Edirne, and Çelen, Yıldız, Atak, Tabak & Arsoy (2002), Hokka, Palosuo, Zhuravleva, Parna, Mussalo-Rauhamaa & Lakomova (1999) and Cui & Chen (1999). However, this may vary from one place to another (Cui & Chen, 1999) because each place may have its unique problems (Huang, Zhang & Deng, 2006; Tuncer, Sungur, Tekkaya & Ertepinar, 2004). In this study, the primary 8th grades aren't aware of environmental problem in the close environment.

In a study conducted by TÇV (1995), it was found the primary environmental problems in Turkey are air and soil pollution but in the present study, the students think that global warming, one of the serious problems of the world, also negatively affects Turkey and moreover, unplanned urbanization and wastes are among the serious environmental problems of Turkey. The finding of the present study concurs with those of the study conducted by Yılmaz & Sezen-Öz (2004) and Çelen et. al. (2002). Because of the fact that these problems are included in the agenda of the media, we can comment that media plays important role in ensuring awareness.

Environment and human conference held in Stockholm by The United Nations for the first time discussed the thinning of Ozone Layer, global warming (Ehrlich, 2008) and some other problems at a global level (Sonnenfeld & Mol, 2002), and the issues discussed in this conference show some similarities with the global problems stated in the present study. Moreover, in their study, Recchia (2001) and Seçken (1998) reported similar findings. But they are not in compliance with the findings of the study of Özdemir et. al. (2004). This may be because of the differences in the demographic characteristics of the samplings such as gender, population, socio-economic level, education status of parents (Luoghland et. al., 2003). Global warming are thinning of Ozone Layer are constantly presented in news by media. And we say that media affects individual's perceptions in this study.

The present study revealed that air pollution and one of its consequences, global warming, were found to be considered as the most serious environmental problems and this finding is supported by the finding of the study by Çabuk & Karacaoğlu (2003) where they reported that sensitivity towards air, water and soil pollution is very high.

5. Conclusion and Recommendation

Raising the individuals' awareness of the environmental problems, improving environmental sensitivity will make great contributions to the creation of sustainable environment (Hsu, 2004); hence, in line with the primary school students mostly acquire information about environmental problems from radio and television, internet, newspapers and magazines and media plays important role in daily life, so that television channels should reserve more place and time for environmental programs, and the results of the environmental-friendly activities and campaigns should be broadcast so that the environmental awareness and sensitivity of the public can be fostered.

In line with the increasing knowledge base will help improve the environmental attitudes, teachers at every level of education should teach their students that they have to live hand in hand with the environment. For this purpose, activities providing students with opportunities to voluntarily participate in environmental works should be organized, panels and seminars should be held, tree-planting campaigns should be organized so that the integration of the students with the nature should be promoted.

When the fact that the participant aren't aware of the most important environmental problems too is considered, before "from near to far" principle is applied, the close environment is described and organized trip and discussed about it.

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